

## PENT COOPERATION TRE Y

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION  
(PCT Rule 61.2)

Date of mailing (day/month/year) 02 May 2001 (02.05.01)	To:  Commissioner US Department of Commerce United States Patent and Trademark Office, PCT 2011 South Clark Place Room CP2/5C24 Arlington, VA 22202 ETATS-UNIS D'AMERIQUE in its capacity as elected Office
International application No. PCT/GB00/03231	Applicant's or agent's file reference P1398
International filing date (day/month/year) 21 August 2000 (21.08.00)	Priority date (day/month/year) 24 August 1999 (24.08.99)
Applicant AL-OBAIDY, Bahir et al	

1. The designated Office is hereby notified of its election made:

in the demand filed with the International Preliminary Examining Authority on:

22 January 2001 (22.01.01)

in a notice effecting later election filed with the International Bureau on:

\_\_\_\_\_

2. The election  was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No.: (41-22) 740.14.35	Authorized officer  Olivia TEFY  Telephone No.: (41-22) 338.83.38
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21-8-2016 10:22:11

PCT

## REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For receiving Office use only	
International Application No.	
International Filing Date	
Name of receiving Office and "PCT International Application"	
Applicant's or agent's file reference (if desired) (12 characters maximum)	P1398

<b>Box No. I TITLE OF INVENTION</b>	
REMOTELY INTERACTIVE METERING SYSTEM	
<b>Box No. II APPLICANT</b>	
<p>Name and address: (Family name followed by given name: for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</p> <p>Digiterm Limited 12 Millison Grove Solihull West Midlands B90 4UN GB</p>	
<input type="checkbox"/> This person is also inventor. <input type="text"/> Telephone No. <input type="text"/> Facsimile No. <input type="text"/> Teleprinter No.	
<p>State (that is, country) of nationality: GB</p> <p>This person is applicant for the purposes of:</p>	<p>State (that is, country) of residence: GB</p> <p><input type="checkbox"/> all designated States   <input checked="" type="checkbox"/> all designated States except the United States of America   <input type="checkbox"/> the United States of America only   <input type="checkbox"/> the States indicated in the Supplemental Box</p>
<b>Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)</b>	
<p>Name and address: (Family name followed by given name: for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</p> <p><u>AL-OBAIDY</u> Bahir 11 Warlingham Road East Dulwich London SE22 9HD GB</p>	
<p>This person is:</p> <p><input type="checkbox"/> applicant only <input checked="" type="checkbox"/> applicant and inventor <input type="checkbox"/> inventor only (If this check-box is marked, do not fill in below.)</p>	
<p>State (that is, country) of nationality: GB</p> <p>This person is applicant for the purposes of:</p>	<p>State (that is, country) of residence: GB</p> <p><input type="checkbox"/> all designated States   <input type="checkbox"/> all designated States except the United States of America   <input checked="" type="checkbox"/> the United States of America only   <input type="checkbox"/> the States indicated in the Supplemental Box</p>
<p><input checked="" type="checkbox"/> Further applicants and/or (further) inventors are indicated on a continuation sheet.</p>	
<b>Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE</b>	
<p>The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:</p> <p><input checked="" type="checkbox"/> agent   <input type="checkbox"/> common representative</p>	
<p>Name and address: (Family name followed by given name: for a legal entity, full official designation. The address must include postal code and name of country.)</p> <p>WATTS Peter Graham Anthony Cundy &amp; Co. 1 Olton Bridge 245 Warwick Road Solihull B92 9AH GB</p>	
<p><input type="text"/> Telephone No. +44 121 708 0080</p> <p><input type="text"/> Facsimile No. +44 121 708 2383</p> <p><input type="text"/> Teleprinter No.</p>	

GB  **Address for correspondence:** Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent. *See Notes to the request form*  
Form PCT/RO/101 (first sheet) (July 1998: reprint January 2000)

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>P1398</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/GB 00/ 03231</b>	International filing date (day/month/year) <b>21/08/2000</b>	(Earliest) Priority Date (day/month/year) <b>24/08/1999</b>
Applicant <b>DIGITERM LIMITED</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

contained in the international application in written form.

filed together with the international application in computer readable form.

furnished subsequently to this Authority in written form.

furnished subsequently to this Authority in computer readable form.

the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2.  **Certain claims were found unsearchable** (See Box I).

3.  **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

**INTERACTIVE SYSTEM FOR REMOTE READING OF UTILITY METERS**

5. With regard to the **abstract**,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

as suggested by the applicant.

because the applicant failed to suggest a figure.

because this figure better characterizes the invention.

1

None of the figures.

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB 00/03231

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G08C17/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G08C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>US 5 892 758 A (ARGYROUDIS PANAYOTIS) 6 April 1999 (1999-04-06)</p> <p>column 4, line 35 -column 6, line 40 column 9, line 1 - line 24 column 10, line 21 -column 11, line 9 column 16, line 11 -column 17, line 38 ---</p>	1-6, 9, 11, 13, 16-18, 23, 26, 29-32
X	<p>EP 0 629 098 A (LOGICA UK LTD) 14 December 1994 (1994-12-14)</p> <p>column 3, line 35 -column 4, line 32 column 5, line 8 -column 6, line 33 column 7, line 44 -column 10, line 18 ---</p>	1-3, 6, 9, 13-17, 23, 26-28, 30-32

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

### \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

18 December 2000

Date of mailing of the international search report

27/12/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax (+31-70) 340-3016

Authorized officer

Pham, P

## INTERNATIONAL SEARCH REPORT

International Application No	PCT/GB 00/03231
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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 897 607 A (SZYDLOWSKI LAWRENCE G ET AL) 27 April 1999 (1999-04-27)  column 2, line 49 - line 60 column 3, line 62 -column 5, line 6 column 6, line 49 -column 7, line 25 column 8, line 47 -column 9, line 3 column 12, line 5 -column 13, line 3 ----	1,2,4,6, 9,13-16, 19,20, 28,30-32
X	EP 0 329 901 A (GEN ELECTRIC) 30 August 1989 (1989-08-30)  column 7, line 22 -column 8, line 58 column 10, line 1 -column 11, line 14 ----	1,2,4,6, 9,13,16, 17,20, 22,28, 30-32
X	US 5 883 886 A (EATON ERIC THOMAS ET AL) 16 March 1999 (1999-03-16)  column 1, line 65 -column 4, line 5 ----	1-4,6, 13,23, 26,31,32

## INTERNATIONAL SEARCH REPORT

Information on patent family members

Intern. [REDACTED] Application No

PCT/GB 00/03231

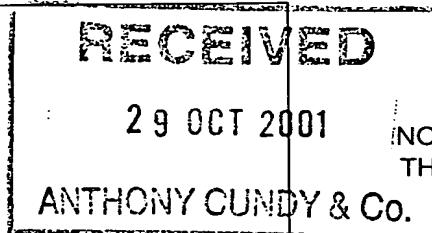
Patent document cited in search report	Publication date	Patent family member(s)			Publication date
US 5892758 A	06-04-1999	US 5748104 A			05-05-1998
EP 0629098 A	14-12-1994	GB 2278699 A			07-12-1994
		DE 629098 T			12-09-1996
		ES 2088837 T			01-10-1996
US 5897607 A	27-04-1999	NONE			
EP 0329901 A	30-08-1989	US 4862493 A			29-08-1989
		BR 8806987 A			05-09-1989
		JP 2003816 A			09-01-1990
		US 5079715 A			07-01-1992
US 5883886 A	16-03-1999	NONE			

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

WATTS, P.G.  
ANTHONY CUNDY & CO  
1 Olton Bridge  
245 Warwick Road  
Solihull B92 9AH  
GRANDE BRETAGNE



**PCT**

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT  
(PCT Rule 71.1)

Date of mailing  
(day/month/year) 26.10.2001

Applicant's or agent's file reference  
P1398

## IMPORTANT NOTIFICATION

International application No.  
PCT/GB00/03231

International filing date (day/month/year)  
21/08/2000

Priority date (day/month/year)  
24/08/1999

Applicant  
DIGITERM LIMITED et al

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/

European Patent Office  
D-80298 Munich  
Tel. +49 89 2399 - 0 Tx: 523656 epmu d  
Fax: +49 89 2399 - 4465

Authorized officer

Röhner, M

Tel. +49 89 2399-2294



PRESENT COOPERATION TREATY

PCT

NOTICE INFORMING THE APPLICANT OF THE  
COMMUNICATION OF THE INTERNATIONAL  
APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

From the INTERNATIONAL BUREAU

To:

WATTS, Peter, Graham  
Anthony Cundy & Co.  
1 Olton Bridge  
245 Warwick Road  
Solihull B92 9AH  
ROYAUME-UNI

RECEIVED  
- 8 MAR 2001

ANTHONY CUNDY & CO.

<b>Date of mailing (day/month/year)</b> 01 March 2001 (01.03.01)	
<b>Applicant's or agent's file reference</b> P1398	
<b>International application No.</b> PCT/GB00/03231	<b>International filing date (day/month/year)</b> 21 August 2000 (21.08.00)
<b>Priority date (day/month/year)</b> 24 August 1999 (24.08.99)	
<b>Applicant</b> DIGITERM LIMITED et al	

**IMPORTANT NOTICE**

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:

AU,KP,KR,US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:

AE,AL,AM,AP,AT,AZ,BA,BB,BG,BR,BY,CA,CH,CN,CR,CU,CZ,DE,DK,DM,EA,EE,EP,ES,FI,GB,GD,  
GE,GH,GM,HR,HU,ID,IL,IN,IS,JP,KE,KG,KZ,LK,LR,LS,LT,LU,LV,MA,MD,MG,MK,MN,MW,MX,  
NO,NZ,OA,PL,PT,RO,RU,SD,SE,SG,SI,SK,SL,TJ,TM,TR,TT,TZ,UA,UG,UZ,VN,YU,ZA,ZW  
The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on 01 March 2001 (01.03.01) under No. WO 01/15114

**REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)**

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a **demand for international preliminary examination** must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

**REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))**

If the applicant wishes to proceed with the international application in the **national phase**, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland	<b>Authorized officer</b> J. Zahra
Facsimile No. (41-22) 740.14.35	Telephone No. (41-22) 338.83.38

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT 00/03231

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 G08C17/02

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 G08C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>US 5 892 758 A (ARGYROUDIS PANAYOTIS) 6 April 1999 (1999-04-06)</p> <p>column 4, line 35 -column 6, line 40 column 9, line 1 - line 24 column 10, line 21 -column 11, line 9 column 16, line 11 -column 17, line 38 ---</p>	1-6, 9, 11, 13, 16-18, 23, 26, 29-32
X	<p>EP 0 629 098 A (LOGICA UK LTD) 14 December 1994 (1994-12-14)</p> <p>column 3, line 35 -column 4, line 32 column 5, line 8 -column 6, line 33 column 7, line 44 -column 10, line 18 ---</p> <p style="text-align: right;">-/-</p>	1-3, 6, 9, 13-17, 23, 26-28, 30-32

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- °A° document defining the general state of the art which is not considered to be of particular relevance
- °E° earlier document but published on or after the international filing date
- °L° document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- °O° document referring to an oral disclosure, use, exhibition or other means
- °P° document published prior to the international filing date but later than the priority date claimed

°T° later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

°X° document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

°Y° document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

°&° document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

18 December 2000

27/12/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.  
Fax: (+31-70) 340-3016

Authorized officer

Pham, P

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/00/03231

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 897 607 A (SZYDLOWSKI LAWRENCE G ET AL) 27 April 1999 (1999-04-27)  column 2, line 49 - line 60 column 3, line 62 -column 5, line 6 column 6, line 49 -column 7, line 25 column 8, line 47 -column 9, line 3 column 12, line 5 -column 13, line 3 -----	1,2,4,6, 9,13-16, 19,20, 28,30-32
X	EP 0 329 901 A (GEN ELECTRIC) 30 August 1989 (1989-08-30)  column 7, line 22 -column 8, line 58 column 10, line 1 -column 11, line 14 -----	1,2,4,6, 9,13,16, 17,20, 22,28, 30-32
X	US 5 883 886 A (EATON ERIC THOMAS ET AL) 16 March 1999 (1999-03-16)  column 1, line 65 -column 4, line 5 -----	1-4,6, 13,23, 26,31,32

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International Application No

PCT/00/03231

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
US 5892758	A 06-04-1999	US	5748104 A	05-05-1998
EP 0629098	A 14-12-1994	GB	2278699 A	07-12-1994
		DE	629098 T	12-09-1996
		ES	2088837 T	01-10-1996
US 5897607	A 27-04-1999	NONE		
EP 0329901	A 30-08-1989	US	4862493 A	29-08-1989
		BR	8806987 A	05-09-1989
		JP	2003816 A	09-01-1990
		US	5079715 A	07-01-1992
US 5883886	A 16-03-1999	NONE		

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Article 36 and Rule 70)

Applicant's or agent's file reference  P1398	<b>FOR FURTHER ACTION</b>		See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No.  PCT/GB00/03231	International filing date (day/month/year)  21/08/2000	Priority date (day/month/year)  24/08/1999	
International Patent Classification (IPC) or national classification and IPC  G08C17/02			
Applicant  DIGITERM LIMITED et al			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p> <p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li>I <input checked="" type="checkbox"/> Basis of the report</li> <li>II <input type="checkbox"/> Priority</li> <li>III <input checked="" type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li>IV <input checked="" type="checkbox"/> Lack of unity of invention</li> <li>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI <input type="checkbox"/> Certain documents cited</li> <li>VII <input checked="" type="checkbox"/> Certain defects in the international application</li> <li>VIII <input type="checkbox"/> Certain observations on the international application</li> </ul>			
Date of submission of the demand  22/01/2001	Date of completion of this report  26.10.2001		
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  Wagner, U  Telephone No. +49 89 2399 8171		



INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT

International application No. PCT/GB00/03231

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, pages:**

1-9 as originally filed

**Claims, No.:**

1-32 as originally filed

**Drawings, sheets:**

1/2-2/2 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/GB00/03231

the drawings,      sheets:

5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

the entire international application.

claims Nos. 32.

because:

the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):

the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 32 are so unclear that no meaningful opinion could be formed (*specify*):  
**see separate sheet**

the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

no international search report has been established for the said claims Nos. .

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

the written form has not been furnished or does not comply with the standard.

the computer readable form has not been furnished or does not comply with the standard.

**IV. Lack of unity of invention**

1. In response to the invitation to restrict or pay additional fees the applicant has:

restricted the claims.

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- paid additional fees.
- paid additional fees under protest.
- neither restricted nor paid additional fees.

2.  This Authority found that the requirement of unity of invention is not complied and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- complied with.
- not complied with for the following reasons:  
**see separate sheet**

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- all parts.
- the parts relating to claims Nos. .

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes:	Claims
	No:	Claims 1-3,6,9,13-17,23,26-28,30-31
Inventive step (IS)	Yes:	Claims
	No:	Claims 4,5,7,8,10-12,18-22,24,25,29
Industrial applicability (IA)	Yes:	Claims 1-31
	No:	Claims

2. Citations and explanations  
**see separate sheet**

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:  
**see separate sheet**

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D1: EP-A-0 629 098 (LOGICA UK LTD) 14 December 1994 (1994-12-14)

**Re Item III**

**Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

Claim 32 include a general reference to the drawings. Its scope of protection is therefore absolutely unclear (Art. 6 PCT). No meaningful statement under Art. 33 PCT can be made for it.

**Re Item IV**

**Lack of unity of invention**

Claim 1 is fully anticipated by D1, see figures 1 and 2, column 3, line 35 - column 4, line 32 and in particular column 9, lines 27-52. Claim 1 is therefore not new. Then, however, claims 2,3,4-11,13,16,18-23,25,27,29,30 and 31, being directly dependent on claim 1, form a group of inventions not linked by a common inventive concept, as required by Art. 13.1 PCT

**Re Item V**

**Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Claim 1 is fully anticipated by D1, see figures 1 and 2, column 3, line 35 - column 4, line 32 and in particular column 9, lines 27-52. Claim 1 is therefore not new. Art. 33(1) PCT is not met.
2. The subject-matter of dependent claims 2,3,6,9,13-17,23,26-28 and 30-32 is also anticipated by D1, see also column 5, line 8 - column 6, line 33 and column 7, line 44 - column 9, line 26. These claims therefore fail to meet Art. 33(1) PCT.
3. Claims 24 and 25 specify the time signals that the meter reading collection hubs receives. As far as they can be understood, they are time signals broadcast for public use in the United Kingdom. In D1, the time signal received by the meter

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reading collection hub is transmitted by the centralised meter reading server. It is considered as being an obvious alternative to the prior art solution to replace the server master clock with an available public time signal as the ones claimed in claims 24 and 25. A skilled person would therefore arrive at claims 24 and 25 from D1 without having performed an inventive step. Hence, claims 24 and 25 do not meet Art. 33(1) PCT.

4. The remaining dependent claims contain merely design alternatives for the metering system known from D1. They cannot justify an inventive step as required by Art. 33(1) PCT.

**Re Item VII**

**Certain defects in the international application**

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein.

The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

**Re Item VIII**

**Certain observations on the international application**

Claims 24 and 25 claim the names of real-time time signals that are believed to not be part of the general technical terminology in the art of metering systems. Claims 24 and 25 are therefore considered to be unclear in the definitions of Art. 6 PCT.

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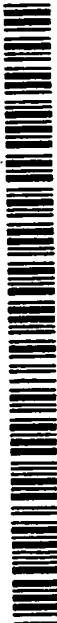
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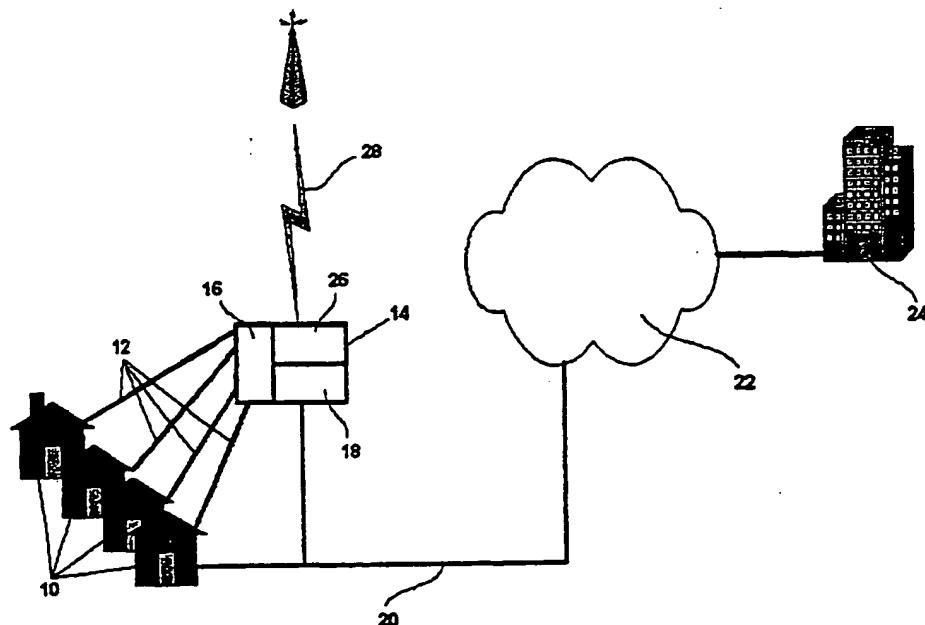
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[Continued on next page]

(54) Title: INTERACTIVE SYSTEM FOR REMOTE READING OF UTILITY METERS



WO 01/15114 A1



(57) Abstract: A remotely interactive metering system comprises a plurality of meter reading collection hubs (14) connected via a telecommunications network to a centralised meter reading server (24), each meter reading collection hub (14) being connected to a plurality of sensing means for interfacing with a meter and providing an output signal corresponding to the meter reading, the meter reading collection hub including communication means (26) for receiving real-time time signals (28) which are used to synchronise transmission of data from the meter reading collection hub (14) to the centralised meter reading server (24).



*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*